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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* WILLIAM R. TRUTNA JR. and KENNETH R. WILDNAUER

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Appeal 2009-013426  
Application 10/733,675  
Technology Center 2600

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Before ALLEN R. MacDONALD, THOMAS S. HAHN, and ERIC S.  
FRAHM, *Administrative Patent Judges*.

FRAHM, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF CASE

*Introduction*

Appellants appeal under 35 U.S.C. § 134(a) from a final rejection of claims 1-6 and 11-19. Claims 7-10 and 20-25 stand withdrawn due to the restriction requirement mailed January 26, 2007, and Appellants' response

thereto filed February 26, 2007. We have jurisdiction under 35 U.S.C. § 6(b).

*Exemplary Claim*

Exemplary claim 1 under appeal reads as follows:

1. A wavelength division multiplexing (WDM) method for transmitting information signals via multiple transmission channels, the method comprising:

encoding each information signal with a respective spreading code to generate a coded signal corresponding to each bit of the spreading code, the spreading codes being mutually different;

allocating the coded signals corresponding to the same bit of the spreading codes to a respective one of the transmission channels; and

in each of the transmission channels:

analog summing the coded signals allocated thereto to generate a modulation signal, and

generating an optical transmission signal in response to the modulation signal.

*Rejections on Appeal*<sup>1</sup>

The Examiner rejected claims 1 and 2 under 35 U.S.C. § 103(a) as being unpatentable over the combination of Sudo (US 6,839,335 B1), Dent (US 6,680,928 B1), and Hoang (US 2004/0246973 A1).

The Examiner rejected claim 3 under 35 U.S.C. § 103(a) as being unpatentable over the combination of Sudo, Dent, Hoang, and Shattil (US 2002/0150070 A1).

The Examiner rejected claims 4 and 5 under 35 U.S.C. § 103(a) as being unpatentable over the combination of Sudo, Dent, Hoang, and van der Gracht (US 4,835,517).

The Examiner rejected claim 6 under 35 U.S.C. § 103(a) as being unpatentable over the combination of Sudo, Dent, Hoang, and Balachandran (US 7,187,715 B2).

The Examiner rejected claims 11 and 12 under 35 U.S.C. § 103(a) as being unpatentable over the combination of Sudo, Dent, and Byung-gu Ahn and Youngil Park, *A Symmetric-Structure CDMA-PON System and Its*

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<sup>1</sup> Separate patentability is not argued for claims 3-6 and 11-19 (*see* Br. 13-20). “A statement which merely points out what a claim recites will not be considered an argument for separate patentability of the claim.” 37 C.F.R. § 41.37(c)(1)(vii) (last sentence). Further, merely restating with respect to a second claim an argument, previously presented with respect to a first claim, is not an argument for separate patentability of the two claims. For the foregoing reasons, and because Appellants only present arguments relating to the merits of Sudo and Dent (*see* Br. 6-13), our analysis will specifically address the § 103 rejection over Sudo and Dent as applied to claims 1 and 2.

*Implementation*, IEEE PHOTONICS TECHNOLOGY LETTERS, Vol. 14, No. 9, 1381-83 (September 2002) (hereinafter, “Ahn”).

The Examiner rejected claim 13 under 35 U.S.C. § 103(a) as being unpatentable over the combination of Sudo, Dent, Ahn, and Shattil.

The Examiner rejected claims 14-16 under 35 U.S.C. § 103(a) as being unpatentable over the combination of Sudo, Dent, Ahn, and Way (US 2002/0021464 A1).

The Examiner rejected claims 17 and 18 under 35 U.S.C. § 103(a) as being unpatentable over the combination of Sudo, Dent, Ahn, and van der Gracht.

The Examiner rejected claim 19 under 35 U.S.C. § 103(a) as being unpatentable over the combination of Sudo, Dent, Ahn, and Balachandran.

#### *Appellants’ Contentions*

Appellants contend (Br. 6-13) that the Examiner erred in rejecting claims 1 and 2 under 35 U.S.C. § 103(a) (*see supra* first rejection) for numerous reasons including: (1) Sudo fails to allocate spread-spectrum encoded transmission signals in the same manner as recited in claim 1, because Sudo has intermediate processing steps between the encoding and allocating steps, and these additional intermediate processing steps transform the encoded signals such that a different signal is being allocated in Sudo than in claim 1 (Br. 8-11); (2) Sudo fails to disclose or suggest allocating coded signals generated by the encoding step *directly*, without additional processing, to respective transmission channels (Br. 11); (3) Sudo’s

allocation section performs IFFT processing, and this is different than Appellants' invention that does not perform such processing (Br. 11-12); (4) Sudo fails to *directly* allocate encoded signals to the analog summer, in contrast with Appellants' Figure 2 which allocates at circuit 25 and then is input *directly* to analog summers without additional processing (Br. 11-12); and (5) and Dent's combiner 24 (Fig. 1) and combiner 58 (Fig. 2) serve to combine the entire spread-spectrum coded signal to generate a single composite modulation signal, and thus there is no suggestion in Dent to sum the same bits of each of plural spreading code signals (Br. 12-13).

### *Issues on Appeal*

Does a proper interpretation of the language recited in independent claim 1 require that signal allocation of the encoded signals occur *directly* after encoding, and without any additional or intermediary processing before being allocated to respective transmission channels and summed?

Did the Examiner err in rejecting claims 1 and 2 as being obvious because Sudo and Dent fail to teach or suggest claim limitations at issue?

### ANALYSIS

We have reviewed the Examiner's rejections in light of Appellants' arguments in the Appeal Brief that the Examiner has erred.

We disagree with Appellants' conclusions. We adopt as our own (1) the findings and reasons set forth by the Examiner in the action from

which this appeal is taken and (2) the reasons set forth by the Examiner in the Examiner's Answer (Ans. 4-18) in response to Appellants' Appeal Brief. We concur with the conclusions reached by the Examiner.

We agree with the Examiner (*see* Ans. 14-16) that the language of independent claim 1 does not require that signal allocation of the encoded signals occur *directly* after encoding (*i.e.*, without any additional or intermediary processing before being allocated to respective transmission channels and summed). Accordingly, the Examiner is correct (Ans. 15-16) that the language of claim 1, including the use of the term "comprising" as opposed to "consisting of," encompasses Sudo's additional processing (*e.g.*, performed by addition section 2 and S/P converter 3). The same holds true for independent claim 11.

As to Appellants' argument (Br. 12-13) that Dent's combiner 24 (Fig. 1) and combiner 58 (Fig. 2) serve to combine the entire spread-spectrum coded signal to generate a single composite modulation signal, and thus there is no suggestion to sum the same bits of each of plural spreading code signals, we disagree because the Examiner merely cites Dent for a teaching that bits are allocated to a transmission channel by being summed prior to transmission (*see* Ans. 4-5 and 17-18).

## CONCLUSIONS

(1) The Examiner has not erred in rejecting claims 1-6 and 11-19 as being unpatentable under 35 U.S.C. § 103(a).

(2) On this record, claims 1-6 and 11-19 are not patentable.

**DECISION**

The Examiner's rejections of claims 1-6 and 11-19 are affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

**AFFIRMED**

rwk